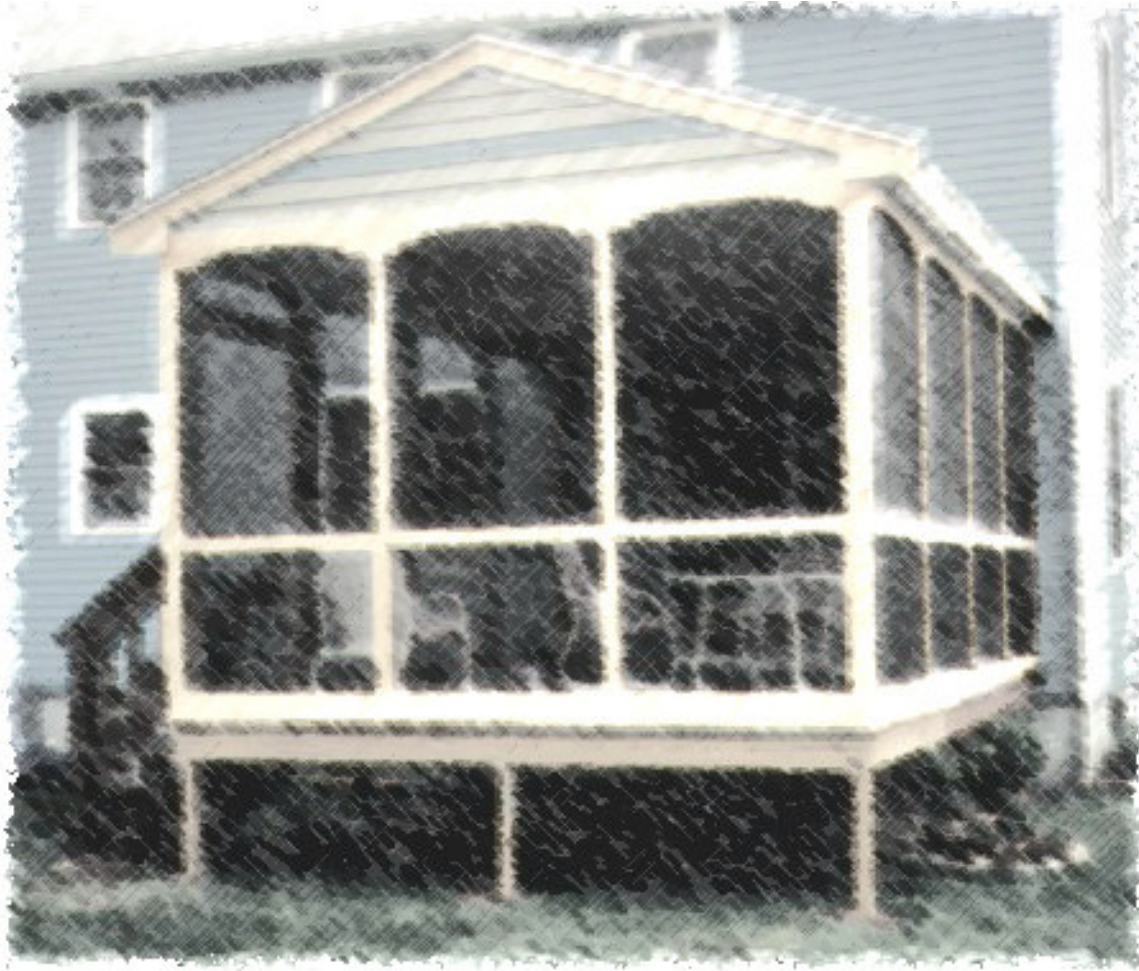


COVERED AND SCREENED PORCHES:
WHAT YOU NEED TO KNOW...



Mecklenburg County Code Enforcement
Hal Marshall County Services Center · 700 North Tryon Street · Charlotte, NC 28202
Residential Technical Answer Center · 704-432-RTAC (7822)

Notice to the Reader

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Refer to the Code Appendix document link to retrieve important related tables and figures from the 2003 International Code for One and Two Family Dwellings.



There is nothing like a covered or screened porch during the perfect days of spring and fall. In fact, with our temperate climate, a screen porch can be used almost every day of the year. Covered/ screened porches have become so popular that they are now the focus of popular design magazines and TV shows. Some of these covered/screened porches are so elaborate that they include fireplaces, outdoor grills, Jacuzzis, and more. You can design whatever you desire!

This booklet will help you design and build your own covered/ screened porch. It covers building permits, building codes pertaining to covered/screened porch construction and inspections. You will find information concerning footings, foundations, framing for floors, walls, ceilings and rafters to help you create the perfect screen porch.

Need help? Please call the Residential Technical Answer Center (**RTAC**) for all your building code and permit questions –

704-432-RTAC (7822)

Or you can bring your sketch to **RTAC** at the Hal Marshall County Services Center, 700 North Tryon Street, Charlotte. One of our inspectors will review your drawing. **RTAC** is also available to you during construction.

Whatever your question, **RTAC** is there for you!



Getting Started

Yes, you will need a building permit, which includes local zoning approval before you start construction. To make the process go smoothly, here are some tips **BEFORE** you apply for the permit:

- **Do a rough sketch**...We suggest that you make a rough sketch of your covered/screened porch to help you size the correct building components such as footings, pier locations, floor/ceiling joist spans. Decide what type of foundation, floor, and roof type you wish to build. Don't forget to think about furniture placement. Your covered/screened porch is an outdoor room to be used like your favorite room in your house. Make sure that you have enough room for all of your outdoor living activities.
- **Ask yourself these questions**: Do you want your porch to have lights, fans, any type of grill or fireplace or anything that requires plumbing (such as a wet bar or garden hose connection)? If the answer is yes, you must consult with a licensed electrician, plumber and/or mechanical contractor. Make sure to get their name, license number and a construction cost estimate. You will need this information when you apply for the permit.
- **Prepare a total project cost estimate** including the building construction costs and the costs of any additional trade work being performed. The total construction cost shall include all project costs, other than land, including all site and building improvement labor and materials, contractor fees and design professional fees. If you are planning to do most of the work yourself, your labor cost must be included as if you were paying someone else to perform the work.



Getting Your Building and Zoning Permits

- When you have gathered all of the necessary information from your contractors, you're ready to apply for your permit. As the homeowner, you have two options to apply for the building permit in person at three different locations or via the internet.
- Our new Self-facilitation internet program allows homeowners to acquire permits for projects below \$30,000 and can be accessed from our web site www.meckpermit.com.
- If you prefer to apply for your permit in person, you may apply at one of the following locations:

Mecklenburg County Land Use and Environmental Services Agency (LUESA), residential permit counter located in the Hal Marshall County Services Center, 700 North Tryon Street, Charlotte 28202. The phone number for permit assistance is **704-336-3803**.

LUESA North Office located at 18335 Old Statesville Road, Suite K, Cornelius, NC 28031. Their phone number is **704-432-2520**.

LUESA South Office located at 234 Matthews Station Street, Matthews, NC 28105 (second floor of Matthews Town Hall). Their phone number is **704-814-0435**.

- When you choose to apply in person you will need local zoning approval prior to submitting your building permit application. Zoning will verify the location of your new covered/screened porch in relationship to your property lines and the required building setbacks. If you live within the jurisdictions of Cornelius, Davidson or Huntersville, you must go to the appropriate town hall for zoning approval. The location of those town halls are as follows;

Cornelius Town Hall is located at 21445 Catawba Avenue Cornelius, NC 28031. Their phone number is **704-892-6031**.

Davidson Town Hall is located at 216 South Main Street Davidson, NC 28036. Their phone number is **704-892-7591**.

Huntersville Town Hall is located at 101 Huntersville-Concord Road Huntersville, NC 28078. Their phone number is **704-875-6541**.



Frequently Asked Questions

Why would I need a mechanical contractor for a screen/covered porch?

If you are planning to install any type of grill or fireplace insert with gas logs, you will need a mechanical contractor.

What if I decide to install a masonry fireplace?

Please contact a masonry contractor for proper installation of a masonry fireplace. You can refer to Chapter 10 in the North Carolina Residential Code Book for code compliance. Call **RTAC** at 704-432-7822 (**RTAC**) for additional information.

What is the difference between a slab on grade and an elevated slab?

Slab on grade still requires footings for the porch structure. An elevated slab has footings and foundation wall. This type of construction requires backfill or a metal pan to pour the slab.

What if I decided to build a foundation wall for my covered/screened porch?

Call **RTAC** at 704-432-7822 for additional information concerning foundation walls. Foundation walls will need continuous footings and a crawl space access door that has a minimum dimension of 18"x 24."

What happens if I decide to use windows instead of screen?

If you decide to use windows, you are now building a sunroom and you will have to build the room like an addition.

Do I need additional lighting for a screen porch?

If the existing lighting provides sufficient illumination at the door entering the residence and to the doorway entering the screen porch then additional lighting is not required. A licensed electrician must perform any alterations or additions to the existing electrical system.



Can I build my covered/screened porch on wood posts?

You can construct a covered/screened porch using the 4x4 or 6x6 wood piers like a wood deck by following the requirements in Appendix M of the NC State Residential Code or the “Are You Ready To Get All Decked Out?” brochure located on our website at www.meckpermit.com. However, if you think that in the future you might enclose the porch for a sunroom or heated space, you are required to have continuous masonry footings and piers. An enclosed foundation requires adequate access and ventilation. These requirements can be found in section R408.1 and R408.2 of the N.C. Residential Code.

Can I build my covered/screened porch on a concrete slab?

Yes, however the concrete slab must have footings around the perimeter to support the roof system. If you think that in the future you might want to enclose the covered/screened porch, you will need to install a vapor barrier under the concrete slab.



Building the Screen/ Covered Porch

The following information is a portion of the code requirements that may apply for the construction of a screen porch. *“This is not intended to be a complete list of code requirements or items to be checked, nor does it certify proper operation of equipment or systems.”*

Footings

- The footings are designed to support all of the loads imposed on the structure as well as the weight of the structure. The sizes of the footings are based on the soil conditions and the amount of the load being supported. Consideration must be given on what type of foundation system you desire, a continuous masonry foundation, individual masonry or wood piers, or a monolithic slab (a concrete slab with perimeter footings poured together).
- The minimum size for continuous footings per table R403.1 is 16 inches wide and 6 inches thick. Continuous footings must be tied into the existing house footings by doweling two number 4 reinforcing bars into the existing house footings a depth of 12 inches and extending into the new footing 24 inches.
- The minimum size for individual supporting piers and columns is 8 inches by 16 inches by 4 inches based on the tributary load and an allowable soil bearing capacity of 2000 pound per square foot (psf) in the footing chart in appendix M or in accordance with Table R403.1a of the NC Residential Code. An example of how to calculate the tributary area of a pier and footing can be found in the detail below.
- The monolithic slab is constructed with perimeter footings a minimum of 16 inches wide and a total depth from top of slab to the bottom of the footing of 18 inches which places the floor elevation a minimum of 6 inches above final grade.
- All exterior footings shall extend below the frost line specified in table R301.2 (1). In no case shall the bottom of the footings be less than 12 inches below grade. If you encounter poor soil conditions there are two options; continue excavating until suitable soil conditions are achieved or you may need to consult a soils engineer or structural engineer to design a footing to work with your soil conditions. *Refer to Appendix B, C, and D for more information.*



Soil Bearing Capacity (R-401.4 Soil Tests)

- Mecklenburg County primarily has expansive type clay soils and the presumptive soil bearing capacity is 2000 psf. When unusual soil conditions are present, or if the bearing capacity of the soil appears to be less than 2000psf, the building official shall determine whether to require a soil test to determine the soil's characteristic at a particular location. This test shall be made by an approved agency using an approved method.
- If soil bearing capacities are assumed greater than 2000 psf a Geotechnical evaluation as prescribed in section R401.4.1 shall be performed as proof of the actual soil bearing capacity.

Concrete Slab (R-506)

- **General:** Concrete slab-on-ground floors shall be a minimum 3.5 inches thick. The specified compressive strength of concrete shall be 3000 psi air entrained concrete as prescribed in Table R402.2. A slab inspection is required prior to pouring concrete.
- **Site preparation:** The area within the foundation walls shall have all vegetation, top soil and foreign material removed.
- **Fill:** Fill material shall be free of vegetation and foreign material. The fill shall be compacted to assure uniform support of the slab, and except where approved, the fill depths shall not exceed 24 inches for clean sand or gravel and 8 inches for earth.
- A Sub grade Verification Letter will be required if fill is 24 inches or greater or if Field Inspector requires. See attached.
- **Base:** A 4-inch thick base course consisting of clean graded sand, gravel, crushed stone or crushed blast-furnace slag passing a 2-inch sieve shall be placed on a prepared sub-grade when the slab is below grade.

Exception: A base is not required when the concrete slab is installed on well drained or sand-gravel mixture of soils classification as Group I according to the United Soil Classification System in accordance with Table R405.1.



- **Vapor Retarder:** An approved vapor barrier with joints lapped not less than 6 inches shall be placed between the concrete floor slab and the base course or the prepared sub-grade where no base course exists.

Exception: The vapor barrier may be omitted:

1. From detached garages, utility buildings and other unheated accessory structures.
2. From driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date.
3. Where approved by the building official, based on local site conditions.

Floors (R-501 – R-504)

- **Design:** Wood floor systems must be designed to carry a 40 psf live load. The wood joist must meet the requirements set forth in Table R-502.3.1(2). The girders or beams which support the floor joist must meet the requirements set forth in Table R-502.5(1). The distance between piers or post as well as the over all width of the structure is necessary to determine the size of the girder from Table R-502.5(1). The fastening requirements for all wood components are found in Table R-602.3(1).
- **Bearing:** The ends of each joist, beam or girder shall have not less than 1.5 inches of bearing on wood or metal and not less than 3 inches on masonry or concrete except where supported on a 1 inch by 4 inch ribbon strip and nailed to the adjacent stud or by the use of approved joist hangers. An 11/2 inch by 11/2 inch ledger along the girder may also be used to support the floor joists. *Refer to Appendix E for more information.*
- **Drilling and Notching.** Structural floor members shall not be cut, bored or notched in excess of the limitations specified below. See Figure R502.8 for additional details.
- **Sawn Lumber.** Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in middle one –third of span. Notches at the ends of the members shall not exceed one-fourth the depth of the member. The tension side of members 4 inches or greater in nominal thickness shall not be notched except at the ends of the members. The



diameter of the holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch.

- **Engineered wood products.** Cuts, notches and holes bored in laminated veneer lumber, glue-laminated members or I-joists are **not permitted unless specified by the manufacturer or prescribed by an engineer.** *Refer to Appendix F and G.*

Wall construction (R602)

- **Top plate:** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and intersections with bearing partitions. End joints in the top plates shall be offset at least 24 inches.

Exception: A single top plate may be installed in the stud walls, provided the plate is adequately tied at the joints, corners, and intersecting walls by a minimum 3-inch by 6-inch by a 0.036-inch-thick galvanized steel plate that is nailed to each wall or segment of wall by six 8d nails on each side, provided the rafters or joists are centered over the studs with a tolerance of no more than 1 inch. The top plate may be omitted over the lintels that are adequately tied to adjacent wall sections with steel plates or equivalent as previously described.

- **Headers (R602.7):** In screened and covered porch construction a header typically takes the place of a top plate. The header is designed in accordance with Table R-502.5(1). The connection between the post and the header is very critical. This connection must resist the lateral forces imposed by the roof system. The post should be notched out and the header is set into the notch or a beam to post connector manufactured by Simpson or USB to provide a proper connection.
- **Bearing studs (R602.3.3):** Where joists, trusses or rafters are spaced more than 16 inches on center and the bearing studs below are spaced 24 inches on center, such members shall bear within 5 inches of the studs beneath.



Exceptions:

1. The top plates are two 2-inch by 6-inch or two 3-inch by 4-inch members
 2. A third top plate is installed.
 3. Solid blocking equal in size to the studs is installed to reinforce the double top plate.
 4. A continuous header is used instead of a top plate
- **Bottom (Sole) plate (R602.3.4).** Studs shall have full bearing on a nominal 2 by or larger plate or sill having a width at least equal to the width of the studs. The bottom plate must be anchored to resist lateral movement. The bottom plate must be pressure treated wood when it is in contact with masonry construction.
 - **Drilling and notching-studs (R602.6).** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of the width. Studs in nonbearing partitions may be notched to a depth not to exceed 40 percent of a single stud width. Any stud may be bored or drilled, provided that the diameter of the resulting holes is no greater than 40 percent of the stud width, the edge of the hole is no closer than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. See Figures R602.6(1) and R602.6(2)

Exceptions:

1. A stud may be bored to a diameter not exceeding 60 percent of its width, provided that such studs located in exterior walls or bearing partitions are doubled and that not more than two successive studs are bored.
2. Approved stud shoes may be used when installed in accordance with the manufacturer's recommendation.
3. Cutting and notching of studs may be increased to 65% of the width of the stud in exterior or interior walls and bearing partitions, provided that one of the following conditions are met:
 - a) The wall section is reinforced with 1/2 inch exterior grade plywood or equivalent reinforcement on the notched side of the wall. Plywood, if used, shall reach from the floor to ceiling and at least one stud further on each side of the section that has been notched or cut.



- b) The exterior walls of a kitchen may be reinforced by placing ½ inch plywood or equivalent reinforcement on the notched side of the wall. Plywood, if used, shall reach from the floor to counter-top height and at least one stud further on each side of the section that has been notched or cut. *Refer to Appendix H for more information.*

- **Drilling and notching the top plate (R602.6.1):** When piping or duct work is placed in or partly in an exterior wall or interior, braced or load-bearing wall, necessitating a cutting of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (16 gage) and 1.5 inches wide shall be fastened to each plate across and each side of the opening with not less than six 16d nails. See Figure R602.6.1

Exception: When the entire side of the wall with the notch or cut is covered by wood structural sheathing
Refer to Appendix I, J, K, and L for more information.

Roof-Ceiling construction (R802)

- **General:** A determination as to the type of roof-ceiling configuration to use is necessary for proper design of the structural components. Some examples include; gable, hip, shed and whether to use a cathedral/vaulted, open or closed ceiling. Each different type has an affect on how the framing must be done to meet code.
- **Framing details:** Rafters shall be framed to a ridge board or to each other with a gusset plate as a tie. The ridge board shall be at least 1 inch nominal thickness and not less in depth than the cut end of the rafter. *Opposing rafters at the ridge must align with the thickness of the ridge member. Regularly spaced hip and valley rafters need not align.* At all valleys and hips there shall be a valley or hip rafter not less than 2 inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than three units vertical in 12 units horizontal (25 percent slope), structural members that support rafter and ceiling joists, such as ridge beams, hips and valleys, shall be designed as beams.



- **Ceiling and rafter connections:** Ceiling joists and rafters shall be nailed to each other in accordance with Table R602.3(1) and R802.5.1(9), and the assembly shall be nailed to the top wall plate in accordance with Table R602.3(1). Ceiling joists shall be continuous or securely joined where they meet over interior partitions and nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to the rafters. This prevents the walls from bowing out in the middle.
- Where ceiling joists are not parallel to rafters, sub-flooring or metal straps attached to the ends of the rafters shall be installed in a manner to provide a continuous tie across the building, or rafters shall be tied to 1 inch by 4 inch (nominal) minimum size crossties. The connections shall be in accordance with Table R602.3(1) or connections of equivalent capacities shall be provided. Where ceiling joists or rafter ties are not provided at the top plate, the ridge formed by these rafters shall also be supported by a girder designed in accordance with accepted engineering practice.
- Rafter ties shall be spaced not more than 4 feet (1219mm) on center.
- A 1 inch by 6 inch or 2 inch by 4 inch collar beam shall be nailed in the upper third of the roof to every third pair of rafters not to exceed 4 feet on centers. Collar beams shall be connected to the rafters as specified in Table R602.3(1) for rafter ties.
- **Ceiling joists lapped (R802.3.2):** Ends of ceiling joists shall be lapped a minimum of 3 inches or butted over bearing partitions or beams and toe-nailed to the bearing member. When ceiling joists are used to provide resistance to rafter thrust, lapped joists shall be nailed together in accordance with Table R602.3(1) and butted joists shall be tied in a manner to resist the lateral thrust.
- **Bearing (R802.6):** The ends of each rafter or ceiling joist shall have not less than 1 ½ inch of bearing on wood or metal and not less than 3 inches on masonry or concrete.
- **Cutting and notching (R802.7):** Structural roof members shall not be cut, bored, or notched in excess of the limitations specified in this section. See Figure 502.8.



- **Sawn lumber (R802.7.1):** Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member and shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of the 4 inch or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of the holes bored or cut into members shall not exceed one-third the depth of the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch.

Exception: Notches on cantilevered portions of rafters are permitted provided the dimension of the remaining portion of the rafter is not less than 4 inches nominal and the length of the cantilever does not exceed 24 inches.

- **Engineered wood products:** Cuts, notches and holes bored in laminated veneer lumber, glue-laminated members or I-joists are not permitted unless specified by the manufacturer or prescribed by an engineer.
- **Vaulted ceiling ridge support:** This type of construction requires the ridge board to be supported by a beam or be designed as a beam. This is due to having to support 50% of the roof load and to prevent the roof loads from placing lateral loads on the walls. The ridge beam should be sized by Structural Engineer or by the Manufacturer of the Structural Lumber. Please have manufacturer's specifications at job site.
- **Truss design drawings (R802.10.1):** Wood trusses shall be designed in accordance with approved engineering practice. The design and manufacture of metal plate connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered design professional. Truss design drawings shall include, at a minimum, the information as specified in the 2002 Residential Code book. Truss design drawings shall be provided with the shipment of trusses delivered to the jobsite.

Refer to Appendix M, N, O, P, and Q for more information.



- **Roof Sheathing:** Use a minimum of 7/16 inch plywood or OSB. Clips are required for rafter spacing of 24 inches on center. For all other sheathing requirements, consult the 2002 NC Residential Code book or call RTAC at 704.432.7822.

Stairways

- **General (R312.1):** A minimum of 3 foot by 3 foot landing shall be required on each side of an egress door. The floor or landing shall not be more than 1 ½ inches lower than the top of the threshold.

Exceptions:

1. At the top of a flight of stairs, provided the door does not swing over the stairs.
2. The landing at the exterior doorway shall not be more than 8 ¼ inches below the top of the threshold, provided the door does not swing over the landing.
3. Exterior storm and screen doors are exempt from the requirements for landings.
4. At the bottom of an interior flight of stairs, there may be a door between the landing and stair.

- **Width (R314.1).** Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31.5 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides.

Exceptions:

1. Stairways not required for egress may be as narrow as 26 inches.
2. The width of spiral stairways shall be in accordance with Section R314.5.
(See NC Residential Code Book for the requirements of other types of stairs)



- **Stair treads and risers (R314.2).** The maximum riser height shall be 8 ¼ inches and the minimum tread depth shall be 9 inches. The riser height shall be measured vertically between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2 percent slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch. The greatest tread depth within any flight of stairs shall not exceed the smallest by 3/8 inch. The top and bottom riser of interior stairs shall not exceed the smaller riser by more than ¾ inch. The height of the top and the bottom riser of the interior stairs shall be measured from permanent finished surface to a permanent finished surface (carpet excluded). Where the bottom riser of an exterior stair adjoins an exterior walk, porch, driveway, patio, garage floor, or finish grade the height of the riser may be less than the height of the adjacent risers.

1. **Stair tread profile (R314.2.1).** The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch. A nosing not less than ¾ inch but not more than 1 ¼ inches shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing by more than 3/8 inch between two stories, including the nosing at the level of the floors and landings. Beveling of nosing shall not exceed ½ inch. Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4 inch diameter sphere.

Exceptions:

1. A nosing is not required where the tread depth is a minimum of 11 inches.
2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches or less.

- **Handrails (R-315.1).** Handrails having a minimum and a maximum of 30 inches and 38 inches, respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways. All required handrails shall be continuous the full length of the stairs with four or more risers from a point directly



above the top riser of the flight to a point directly above the lowest riser of the flight. Ends shall be returned or terminated into newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1.5 inches between the wall and the handrail.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at a turn.
 2. The use of a volute or starting easing shall be allowed over the lowest tread.
 - 3.
- **Handrail grip size (R315.2).** The handgrip portion of handrails shall have a circular cross section of 1 ¼ inches minimum to 2 5/8 inches maximum. Other handrail shapes that provide an equivalent grasping surface are permissible. Edges shall have a minimum radius of 1/8 inch.

Exception: Exterior handrails shall not be more than 3 ½ inches in cross –sectional dimension.

- **Guards required (R316.1).** Porches, balconies or raised floor surfaces located more than 30 inches above floor or grade below shall have guards not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 30 inches in height measured vertically from the nosing of the treads.
- **Guard opening limitations (R316.2).** Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures that do not allow passage of an object 6 inches or more in diameter. Horizontal spacing between the vertical members in required guardrails shall be a maximum of 4 inches at the nearest point between members.

Exception: The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway may be of such size that a sphere 6 inches cannot pass through.



Finishing Up

One important step in completing your project is to ensure that all of the necessary inspections have been approved. Each inspector will leave an inspection sticker on the permit placard or on a window indicating the inspection results including what corrections are needed if the inspection is failed. These results can also be found on our web site www.meckpermit.com under permits and inspections. The next page is an inspection checklist to guide you through the inspection process.

The final building inspection includes checking the exterior steps, handrails and the finish grade. The finish grade must provide for positive drainage away from the foundation and shall be sloped a minimum of 6 inches in 10 feet. The finish floor elevation of a concrete slab must be 6 inches above the finish grade.



Inspections Check List for Your Residential Project

Decks and Screen Porches

- Footing
- Framing
- Final

If you are installing a concrete pad as your floor you will need to call in for a slab inspection. For future sunroom, it is our recommendation that you install a vapor barrier in between the gravel and the slab.

Additions and Renovations

- Footing or Monolithic Slab (MS – a combination inspection of footing/slab inspection)
- Foundation or
- Slab
- Plumbing and/or Electrical Slab Inspection. Mechanical Slab Inspection if applicable.

For your renovation, if you are adding any structural walls or changing structural walls that require adding piers in your crawl space/basement, you will need to call in a Footing Inspection and a Foundation Inspection.

- Rough-In:
- Electrical*
- Mechanical*1
- Plumbing*2
- Sheathing: An Optional Inspection, so you can begin installing your Exterior Veneer. Cost is \$50.00. Framing (Trade Rough-In Inspections must be completed prior to Framing.)
- Insulation: For walls and concealed spaces.
- Final
- Electrical*
- Mechanical*2
- Plumbing*3
- Building
- Certificate of Compliance (obtained after completion of project.)

All Electrical, Mechanical, Plumbing Inspections are to be called in by the Sub-Contractors.



***This not intended to be a complete list of items to be checked nor does it certify proper operation of equipment or systems.**

¹ **Footing Inspection and Monolithic Slab Inspection** is to be made after the trenches are excavated, all grade stakes are installed, all reinforcing steel and supports are in place and appropriately tied, and all necessary forms are in place and braced and **BEFORE YOU POUR ANY CONCRETE.**

² **Mechanical Permits** may require more inspections such as Rough Inspection, Piping, and Gas Test. Your Mechanical Contractor is responsible for all required inspections.

³ **Plumbing Permits** may require more inspections such as Rough Inspection, Water Distribution, Sewer, and Water Service. Your Plumbing Contractor is responsible for all required inspections.

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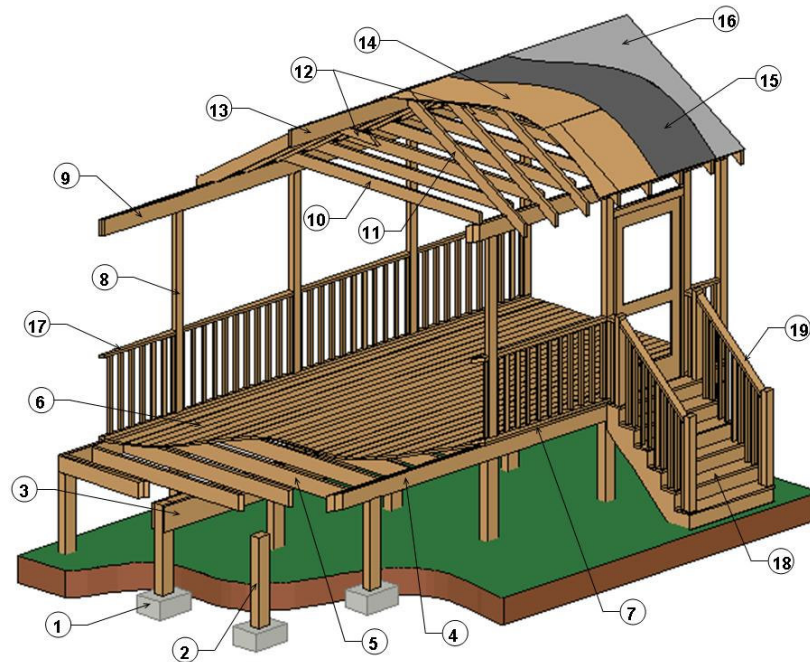
⁴ **Mechanical Permits** may require more inspections such as Rough Inspection, Piping, and Gas Test. Your Mechanical Contractor is responsible for all required inspections.

⁵ **Plumbing Permits may require more inspections such as Rough Inspection, Water Distribution, Sewer, and Water Service. Your Plumbing Contractor is responsible for all required inspections.**



Appendix A: Porch Member Diagram

Cutaway View Of Covered Or Screened Porch

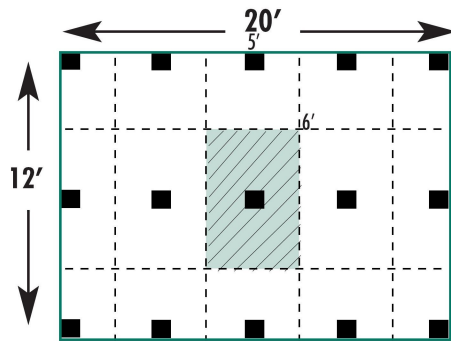


Legend

- 1 - Footing
- 2 - Foundation Post
- 3 - Girder
- 4 - Band
- 5 - Floor Joist
- 6 - Decking
- 7 - Bottom Plate
- 8 - Post
- 9 - Header/Beam
- 10 - Ceiling Joist/Rafter Tie
- 11 - Rafter
- 12 - Collar Tie
- 13 - Ridge Board
- 14 - Sheathing
- 15 - Underlayment
- 16 - Roof Covering
- 17 - Guardrail
- 18 - Steps
- 19 - Handrail



Appendix B: Tributary Load Diagram



The shaded area represents the floor area supported by that pier and footing, which is called the tributary load. This example illustrates a 5' x 6' area or 30 sq. ft. The footing and pier sizes can be found in table R403.1.

